

wherein the data stream has descramble information for descrambling the modulated signal;  
and

- a descrambler operable to descramble the data stream according to the descramble information.

42. A signal transmission system comprising a signal transmission apparatus and a signal receiving apparatus,

said signal transmission apparatus comprising:

- a modulator operable to assign a data stream to a respective constellation in a vector space diagram to produce a modulated signal; and

- a transmitter operable to transmit the modulated signal;

wherein the data stream has descramble information for descrambling the modulated signal;

said signal receiving apparatus, comprising:

- a demodulator operable to demodulate the modulated signal to produce a data stream, and

- a descrambler operable to descramble the data stream according to the descramble information.

43. A signal transmission method comprising:

- assigning a data stream to a respective constellation in a vector space diagram to produce a modulated signal; and

- transmitting the modulated signal;

wherein the data stream has descramble information for descrambling the modulated signal.

44. A signal receiving method, comprising:

- demodulating a received signal to produce a data stream,

wherein the data stream has descramble information for descrambling the modulated signal;

and

- descrambling the data stream according to the descramble information.

45. A signal transmission and receiving method comprising a signal transmission method and a signal receiving method,

said signal transmission method comprising:

- assigning a data stream to a respective constellation in a vector space diagram to produce a modulated signal; and

- transmitting the modulated signal;

wherein the data stream has descramble information for descrambling the modulated signal;

said signal receiving method, comprising:

- demodulating the modulated signal to produce a data stream, and

- descrambling the data stream according to the descramble information.